

REMARKS

Claims 1-30 are pending in the application.

Claims 1-30 stand rejected.

Claims 1, 10, 19 and 22 have been amended.

Claim Objections

Claims 1, 10, 19 and 22 are objected to because of various informalities.

Applicants have amended claims 1, 10, 19 and 22 to address the Examiner's concerns.

Rejection of Claims under 35 U.S.C. §112

Claims 1-30 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse these rejections.

The Office Action asserts "it is unclear how the 'signals' are designated based on 'dividing the M communication signals by three.'" The Office Action also states that "it is well known to one skilled that frames conforming to the SONET standard are already 'designated' to carry line & path overhead and payload. In light of the standard, the signals that are within the frame are already designated." However, with regard to concatenated payloads, the specification of the claimed invention notes that "one problem with concatenated STS signals includes connecting a combination of STS-Ncs within an STS-M payload in a manner that is a working combination of STS-Ncs." (page 4, lines 1-3).

More detail about this issue is provided later in the specification: “When an SPE payload is concatenated, there are multiple payloads with one set of path overhead.” (page 20, lines 3-4). “In a concatenated payload, the subsequent STS-Ns are not independent. More specifically, the subsequent STS-Ns do not have independent read and write capabilities, but rely on the first STS-N to provide control.” (page 20, lines 6-8). Therefore, “at issue is how to hook up the STS-N’s...such that the first STS-N has control over subsequent STS-N’s.” (page 20, lines 4-5). Claim 1 includes a method that responds to this issue.

Applicants reference the specification to respond to the Examiner’s request and to demonstrate that claim 1 particularly points out and distinctly claims the subject matter which Applicants regard as the invention.

According to the specification, an embodiment of the claimed invention includes “a formula for hookup of STS-1s for routing of control signals.” (page 20, lines 19-20). Part of this formula is recited in claim 1, which includes the step of “dividing the M communication signals by three to determine a number Y.” (see also page 20, lines 21-22). According to the specification, Y is “an STS step size” and M is “a size of a total STS payload.” (page 20, lines 19-22).

To provide additional clarity, the specification sets forth an example that “illustrates an application” of an embodiment of the claimed invention. (page 20, line 28 to page 21, line 20). In the example presented, “the size of the full concatenated payload is 48.” “Accordingly, applying $Y=M/3$, the STS step size is determined by applying $M=48$, therefore, $Y=48/3$, which produces a step size of 16.” (page 21, lines 13-15).

In order to determine the control of the M communication signals, Claim 1 claims “designating the first signal of the M communication signals as a control signal.” (see also page 20, lines 6-8). In the example, “the first STS -1 channel controls itself.” This is also shown in Table 2 by designating (1,1), wherein the first ‘1’ designates an STS channel, and the second ‘1’ designates the control for that channel.

Another step in claim 1 includes “designating the second signal through a Yth signal of the M communication signals as being controlled by the immediately preceding signal thereto.” In other words, “for a first set of Y channels other than a first channel...designating a previous channel as a control channel.” (page 20, lines 22-25). This step is shown in the example in the specification as follows: the second STS-1 is designated to follow the control of the first STS-1, the third STS-1 is designated to follow the control of the second STS-1, and so forth until the seventeenth STS-1 (16 channels other than a first channel). (Table 2).

Claim 1 also includes the step of “designating each Y+1th signal of the M signals through the Mth communication signal as being controlled by a signal Y positions prior thereto.” (see also page 20, lines 25-27). In the example in the specification, the Y+1th (16+1) signal is the 17th signal, which is controlled by a signal Y (16) positions prior thereto. In other words, “number 17 is designated to the first STS-1, and thereafter, each following STS-1 receives control from the STS-1 Y positions prior thereto.” (page 21, lines 17-20). As shown in Table 2, the 17th STS-1 receives control from the 1st STS-1, the 18th STS-1 receives control from the 2nd STS-1, and so forth.

In conclusion, the claimed invention provides a method for connecting STS-1s in an STS-M payload to provide a fixed formula for connecting any permissible

combination of STS-Ncs in a multiple STS payload. (page 4, lines 6-9). As previously mentioned, part of the formula for connecting the STS-1s is generated by designating a Y STS step size as M divided by three. The M will be evenly divisible by three according to the GR-253 specification. (page 20, lines 21-23). Thus, the claimed invention adheres to the GR-253 specification, while supporting an STS-M payload, by applying the $Y/3$ formula of the present invention to the designation of channel control for an STS-M payload. (page 20, line 21 to page 21, line 2).

The foregoing discussion clearly illustrates that claim 1 particularly points out and distinctly claims the subject matter which Applicants regard as the invention, as required by 35 U.S.C. §112. Applicants submit that these arguments apply with equal force to claims 10, 19 and 22. Applicants therefore respectfully submit that independent claims 1, 10, 19 and 22, as well as claims 2-9, 11-18, 20-21 and 23-30, which depend on claims 1, 10, 19 and 22, are allowable for at least the foregoing reasons. Accordingly, Applicants respectfully submit that claims 1-30 are in condition for allowance


CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 13, 2004.


Attorney for Applicants Date of Signature

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